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FILE COVERS 1907 - 12 Apr 2002 VOL 136 ISS 15  
FILE LAST UPDATED: 10 Apr 2002 (20020410/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the CAS files between 12/27/01 and 1/23/02. As of 1/23/02, the situation has been resolved. Searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator executed between 12/27/01 and 1/23/02 may be incomplete. See the NEWS message on this topic for more information.

=> d stat que  
L1 326 SEA FILE=REGISTRY GP160?  
L3 1413 SEA FILE=HCAPLUS L1 OR GP160 OR GLUCOPROTEIN160 OR (GP OR GLYCOPROTEIN) (W)160  
L4 3657 SEA FILE=HCAPLUS (L3 OR IMMUNOGEN?) (L) (HIV OR HERPES OR CANDIDAE OR HEPATITIS OR PICONAVIRIDAE OR ROTAVIRUS OR POLIOMYELITIS OR ADENOVIRUS OR PAPILLOMAVIRUS OR CYTOMEGALOVIRUS OR EPSTEIN(W)BARR OR AEROSOL? (W) TRANSMIT? (W) PATHOGEN?)  
L5 20 SEA FILE=HCAPLUS L4 AND (SUBLINGUAL(W) INJECT? OR DEPOSIT? OR BIOADHESIV? OR CAPSULE?)

=> d ibib abs hitrn 15 1-20

L5 ANSWER 1 OF 20 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2002:151605 HCAPLUS  
DOCUMENT NUMBER: 136:172722  
TITLE: Use of GP120 and GP160 proteins modified at the V3 turn of HIV-1 for the preparation of

INVENTOR(S): vaccines and formulations containing them  
 Thibodeau, Lise; Lavallee, Claude  
 PATENT ASSIGNEE(S): Fondation Mondiale Recherche Et Prevention Sida, Fr.  
 SOURCE: Fr. Demande, 23 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2806912	A1	20011005	FR 2000-4310	20000404

AB GP120 and **GP160** proteins modified at the V3 turn of **HIV**  
 -1 are used for the prepn. of vaccines to induce immunity to **HIV**  
 -1 at the humoral, cellular, and mucosal levels. The vaccines contain  
 recombinant Env proteins, adjuvants such as aluminum hydroxide or calcium  
 phosphate or muramyl-peptide derivs., liposomes, and pharmaceutical  
 carriers. Liposomes with av. particle size 90 nm and contg. recombinant  
**GP160** proteins were prepd. and introduced into **capsules**.  
**Immunogenic** efficacy of the vaccine was shown in guinea pigs.

L5 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2001:729600 HCAPLUS  
 TITLE: Gene therapy in cystic fibrosis  
 AUTHOR(S): Flotte, Terence R.; Laube, Beth L.  
 CORPORATE SOURCE: Powell Gene Therapy Center of the University of  
 Florida Genetics Institute, Gainesville, FL, USA  
 SOURCE: Chest (2001), 120(3, Suppl.), 124S-131S  
 CODEN: CHETBF; ISSN: 0012-3692  
 PUBLISHER: American College of Chest Physicians  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Theor., cystic fibrosis transmembrane conductance regulator (CFTR) gene  
 replacement during the neonatal period can decrease morbidity and  
 mortality from cystic fibrosis (CF). In vivo gene transfers have been  
 accomplished in CF patients. Choice of vector, mode of delivery to  
 airways, translocation of genetic information, and sufficient expression  
 level of the normalized CFTR gene are issues that currently are being  
 addressed in the field. The advantages and limitations of viral vectors  
 are a function of the parent virus. Viral vectors used in this setting  
 include **adenovirus** (Ad) and adeno-assocd. virus (AAV). Initial  
 studies with Ad vectors resulted in a vector that was efficient for gene  
 transfer with dose-limiting inflammatory effects due to the large amt. of  
 viral protein delivered. The next generation of Ad vectors, with more  
 viral coding sequence deletions, has a longer duration of activity and  
 elicits a lesser degree of cell-mediated immunity in mice. A more recent  
 generation of Ad vectors has no viral genes remaining. Despite these  
 changes, the problem of humoral immunity remains with Ad vectors. A  
 variety of strategies such as vector systems requiring single, or widely  
 spaced, administrations, pharmacol. immunosuppression at administration,  
 creation of a stealth vector, modification of **immunogenic**  
 epitopes, or tolerance induction are being considered to circumvent  
 humoral immunity. AAV vectors have been studied in animal and human

models. They do not appear to induce inflammatory changes over a wide range of doses. The level of CFTR mRNA expression is difficult to ascertain with AAV vectors since the small size of the vector relative to the CFTR gene leaves no space for vector-specific sequences on which to base assays to distinguish endogenous from vector-expressed mRNA. In general, AAV vectors appear to be safe and have superior duration profiles. Cationic liposomes are lipid-DNA complexes. These vectors generally have been less efficient than viral vectors but do not stimulate inflammatory and immunol. responses. Another challenge to the development of clin. feasible gene therapy is delivery mode. Early pulmonary delivery systems relied on the direct instillation of aerosolized vectors, which can result in the induction of adverse reactions because vector is delivered into the lung parenchyma. More recent studies have examd. the potential for using spray technologies to target aerosolized AAV vectors to the larger central airways, thereby avoiding alveolar exposure and adverse effects. Comparisons of lung **deposition** with nebulized delivery of aerosol and spray delivery indicate that spraying results in a more localized **deposition** pattern (predominantly in the proximal airways) and significantly higher **deposition** fractions than nebulization. These findings could lead to more efficient and targeted lung delivery of aerosolized gene vectors in the future.

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:670773 HCAPLUS

DOCUMENT NUMBER: 135:342925

TITLE: **Immunogenicity** of an E1-deleted recombinant human **adenovirus** against rabies by different routes of administration

AUTHOR(S): Vos, Ad; Neubert, Andreas; Pommerening, Elke; Muller, Thomas; Dohner, Leopold; Neubert, Larissa; Hughes, Kenneth

CORPORATE SOURCE: Impfstoffwerk Dessau-Tornau GmbH, Rosslau, 06855, Germany

SOURCE: Journal of General Virology (2001), 82(9), 2191-2197  
CODEN: JGVIAI; ISSN: 0022-1317

PUBLISHER: Society for General Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The **immunogenic** properties of an E1-deleted, human **adenovirus** type 5 (Ad5) vaccine virus with activity against rabies were examd. in mice, foxes and dogs using different routes of administration. NMRI mice received 105.8, 105.3, 104.3, 103.3 and 102.3 TCID50 by peroral or i.m. (i.m.) administration. Furthermore, six mice received 105.8 TCID50 intracerebrally (i.c.). The construct elicited marked seroconversion in mice after oral administration. Immunoreactivity in mice was even more pronounced i.m. and i.c. After direct oral administration (108.0 TCID50) in foxes, six of eight animals developed rabies virus-neutralizing antibodies (VNA). All foxes immunized by direct injection (107.7 TCID50) in the membrane of the jejunum were shown to seroconvert. Pre-existing immunity against canine **adenovirus** did not hinder the development of rabies VNA after oral application of the construct (108.0 TCID50). Fox cubs (24-29 days old) born from

rabies-immune vixens were shown to develop very high levels of rabies VNA after i.m. administration (108.0 TCID<sub>50</sub>), indicating that the **immunogenicity** of the construct could surpass maternally transferred immunity. In dogs, the construct (108.0 TCID<sub>50</sub>) induced a very strong immune response after i.m. administration. However, no immune response was detectable in dogs after direct oral administration (108.3 TCID<sub>50</sub>) or after endoscopic **deposition** in the smaller intestine (108.0 TCID<sub>50</sub>). Hence, it must be concluded that the construct is not suitable for oral vaccination of dogs against rabies.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:221371 HCAPLUS

DOCUMENT NUMBER: 136:4372

TITLE: Unique **immunogenicity** of hepatitis B virus DNA vaccine presented by live-attenuated *Salmonella typhimurium*

AUTHOR(S): Woo, P. C. Y.; Wong, L.-p.; Zheng, B.-j.; Yuen, K.-y.

CORPORATE SOURCE: Department of Microbiology, Queen Mary Hospital, The University of Hong Kong, Hong Kong, Hong Kong

SOURCE: Vaccine (2001), 19(20-22), 2945-2954

CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A novel vaccine for hepatitis B virus (HBV) was designed by putting a naked DNA vaccine carrying hepatitis B surface antigen (HBsAg) into live-attenuated *Salmonella typhimurium*. Mucosal immunization by the oral route in mice showed significantly stronger cytotoxic T lymphocyte (CTL) response than recombinant HBsAg vaccination ( $P < 0.01$  at an effector:target ratio of 100:1), while comparable to i.m. naked DNA immunization at all effector:target ratios. Contrary to previous reports on naked DNA vaccines given i.m., the IgG antibody response induced by the mucosal DNA vaccine is relatively weak when compared to recombinant HBsAg vaccine ( $P < 0.001$  at day 21). These findings are supported by a high interferon- $\gamma$  but a low interleukin-4 level detected in the supernatant of splenic cell cultures obtained from mucosally immunized mice. As distinct to recombinant HBsAg vaccine which is effective for protection, oral mucosal DNA vaccine should be considered as a candidate for therapeutic immunization in chronic HBV infection, donor immunization before adoptive transfer of HBV-specific CTL to HBsAg pos. bone marrow transplant recipients, and immunization of non-responders to recombinant HBsAg vaccine. This strongly cellular and relatively absent humoral response may make this vaccine a better candidate as a therapeutic vaccine for chronic HBV carriers than naked DNA vaccines, as the humoral response is relatively less important for the clearance of HBV from hepatocytes, but its presence may lead to side effects such as serum sickness and immune complex **deposition** in chronic HBV carriers.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:299990 HCAPLUS

DOCUMENT NUMBER: 134:3651  
 TITLE: Vaccine strategies for Streptococcus pneumoniae  
 AUTHOR(S): Briles, David E.; Swiatlo, Edwin; Edwards, Kathryn  
 CORPORATE SOURCE: Department of Microbiology, University of Alabama at  
 Birmingham, Birmingham, AL, USA  
 SOURCE: Streptococcal Infections (2000), 419-433. Editor(s):  
 Stevens, Dennis L.; Kaplan, Edward L. Oxford  
 University Press, Inc.: New York, N. Y.  
 CODEN: 68YFAT  
 DOCUMENT TYPE: Conference; General Review  
 LANGUAGE: English

AB A review with 153 refs. is presented on vaccine strategies for Streptococcus pneumoniae. The current preventive strategy is immunization of high-risk groups with a 23-valent polysaccharide vaccine based on the most common capsular serotypes. Some common **capsule** serotypes included in the vaccine are poorly **immunogenic** in children less than 2 yr of age, the elderly, and those with advanced HIV infection. These groups represent a significant percentage of patients at risk for invasive pneumococcal infection. Alternative strategies to polysaccharide antigens are proteins or protein conjugate-based vaccines. Conjugates have proven successful for other encapsulated organisms and may potentially be effective in preventing pneumococcal infection. However, the expense and logistic difficulties of using conjugates to protect against such a large no. of pneumococcal serotypes is considerable. A no. of protein virulence factors of pneumococci have been described and a few of these have been studied for their ability to induce a protective immune response in animal models.

REFERENCE COUNT: 153 THERE ARE 153 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:15035 HCAPLUS  
 DOCUMENT NUMBER: 132:69299  
 TITLE: Mucosal targeting immunization comprising immunogens  
 INVENTOR(S): Jourdier, Therese; Moste, Catherine; Meignier, Bernard  
 PATENT ASSIGNEE(S): Pasteur Merieux Serums & Vaccins, Fr.  
 SOURCE: PCT Int. Appl., 30 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000218	A1	20000106	WO 1999-FR1554	19990628
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,				

ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,  
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 AU 9943761 A1 20000117 AU 1999-43761 19990628  
 EP 1087788 A1 20010404 EP 1999-926558 19990628  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI  
 US 2001021384 A1 20010913 US 2000-746581 20001221  
 PRIORITY APPLN. INFO.: FR 1998-8354 A 19980626  
 WO 1999-FR1554 W 19990628

AB The invention concerns the use of an **immunogen** specific of a pathogenic agent with a gateway in the buccal mucous membrane region, for producing a vaccine compn. to be administered in the floor of the mouth in a human being so as to develop directly a local response in IgA antibodies and in B cells secreting IgA in the buccal mucous membrane, saliva and ganglions draining said mucous membrane. The invention also concerns a vaccine compn. capable of being applied in the floor of the mouth in a human being to induce local and systemic immunity in IgA antibodies, substantially consisting of a material adhering or not to the buccal mucous membrane and contg. an **immunogen** specific of the pathogenic agent with a gateway into the buccal mucous membrane. **Capsules** contg. starch and hydroxyapatite particles comprising lyophilized antigens of **cytomegalovirus** or **hepatitis A** were prepd. The **capsules** were slowly dissolved inside the mouth. The hydroxyapatite facilitated the penetration of the **immunogens** through the mucosa.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:393952 HCAPLUS

DOCUMENT NUMBER: 131:43581

TITLE: HIV vaccines

INVENTOR(S): Katinger, Hermann; Buchacher, Andrea; Ernst, Wolfgang; Ballaun, Claudia; Purtscher, Martin; Trkola, Alexandra; Predl, Renate; Schmatz, Christine; Klima, Annelies; Steindl, Franz; Muster, Thomas

PATENT ASSIGNEE(S): Polynum Scientific Immunbiologische Forschung G.m.b.H., Austria

SOURCE: U.S., 15 pp., Cont.-in-part of PCT/EP95/01481.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5911989	A	19990615	US 1995-478536	19950607
WO 9633219	A1	19961024	WO 1995-EP1481	19950419
W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT			
RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,			

SN, TD, TG  
 US 6268484 B1 20010731 US 1998-124900 19980730  
 PRIORITY APPLN. INFO.: WO 1995-EP1481 A2 19950419  
 US 1995-478536 A3 19950607

AB Disclosed are antibodies which can be used for the manuf. of vaccines for active and/or passive immunization of persons in need of such treatment. The invention also provides for human monoclonal antibodies that are functionally equiv. to the above-mentioned antibodies produced by any one of the cell lines CL1 through CL6 (**deposited** at the European Collection of Animal Cell Cultures (ECACC) at the PHLs in Porton Down, Salisbury, UK). Also provided are hybridoma and/or CHO cell lines producing any one of the antibodies disclosed and claimed herein. Also provided are mixts. of antibodies of the present invention, as well as methods of using individual antibodies or mixts. thereof for the detection, prevention and/or therapeutical treatment of HIV-1 infections in vitro and in vivo.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:220007 HCAPLUS

DOCUMENT NUMBER: 130:242334

TITLE: Multivalent vaccines conferring protection against Bordetella pertussis, Clostridium tetani, Coynebacterium diphtheriae, Haemophilus influenzae, poliovirus, and hepatitis B virus

INVENTOR(S): Arminjon, Francois; Cartier, Jean-Rene; Lentsch-Graf, Sandrine; Marchal, Laurent

PATENT ASSIGNEE(S): Pasteur Merieux MSD, Fr.

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9913906	A1	19990325	WO 1997-EP5378	19970915
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2303105	AA	19990325	CA 1997-2303105	19970915
AU 9747070	A1	19990405	AU 1997-47070	19970915
EP 1028750	A1	20000823	EP 1997-909341	19970915
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI			
BR 9714980	A	20011106	BR 1997-14980	19970915

PRIORITY APPLN. INFO.: WO 1997-EP5378 A 19970915

AB A multi-component vaccine compn. is described comprising a cellular

pertussis vaccine components (PT and FHA), diphtheria toxoid (DT), tetanus toxoid (TT), a conjugate of a capsular polysaccharide of Haemophilus influenzae type b and tetanus toxoid or diphtheria toxoid (Hib), **Hepatitis B Surface Ag (HBsAg)** and inactivated poliovirus (IPV). The compn. may comprise the above compds. in a single soln., or certain components may be reconstituted from a lyophilized state by the other components of the vaccine. The administration of the multiple component vaccine resulted in no diminution in the **immunogenicity** of any component as a result of interference by other components of the vaccine.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:97747 HCAPLUS

DOCUMENT NUMBER: 128:216228

TITLE: Safety and immunogenicity of a candidate therapeutic vaccine, p24 virus-like particle, combined with zidovudine, in asymptomatic subjects

AUTHOR(S): Kelleher, Anthony D.; Roggensack, Monika; Jaramillo, Angel B.; Smith, Don E.; Walker, Alan; Gow, Irene; McMurchie, Marilyn; Harris, Jan; Patou, Gary; Cooper, David A.; Community HIV Research Network Investigators

CORPORATE SOURCE: Centre for Immunology, St Vincent's Hospital, University of New South Wales, Darlinghurst, Australia

SOURCE: AIDS (London) (1998), 12(2), 175-182

CODEN: AIDSET; ISSN: 0269-9370

PUBLISHER: Rapid Science Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To evaluate the impact of therapeutic immunization with p24 virus-like particle (VLP) and zidovudine (ZDV) on p24 antibody titer (primary endpoint), CD4+ cell counts, cellular responses to the **immunogen** and recall antigens, and viral load (secondary endpoints) in subjects with asymptomatic **HIV** infection and CD4+ counts greater than 400 .times. 106 cells/l. A double dummy, double-blind randomized placebo-controlled Phase II trial of the therapeutic vaccine p24-VLP, with or without ZDV. ZDV-naive subjects were randomized to one of three groups for 6 mo: group A, ZDV 200 mg three times daily plus i.m. administration of alum adjuvant monthly; group B, ZDV 200 mg three times daily plus p24-VLP (500 .mu.g) in i.m. alum monthly; group C, placebo **capsules** plus p24-VLP (500 .mu.g) in i.m. alum monthly. Subjects were followed for a further 6 mo. Sixty-one patients received vaccinations. The mean CD4+ cell counts pretherapy for groups A, B, and C were 605 .+- 25, 668 .+- 43, and 583 .+- 30 .times. 106 cells/l, resp. Treatment was well tolerated. At both 24 and 52 wk there were no significant differences between the treatment groups in terms of antibody responses to p24, CD4+ or CD8+ cell counts, viral load, T-cell responses to p24, p17, recall antigen or mitogen, or markers of immune activation, despite induction of antibody and proliferative responses to the carrier protein of the vaccine. Vaccination with p24-VLP was well tolerated. P24-VLP either alone or in combination with ZDV did not significantly alter either antibody or proliferative responses to p24, or CD4+ cell no., immune activation or viral load over 12 mo.



L5 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:65996 HCAPLUS  
 DOCUMENT NUMBER: 128:139751  
 TITLE: Stabilization of protein and peptide antigens in vaccines for induction of mucosal immunity  
 INVENTOR(S): Lowell, George H.; Vancott, Thomas C.; Birx, Deborah L.  
 PATENT ASSIGNEE(S): Intellivax, Inc., USA; Henry M. Jackson Foundation; United States Dept. of the Army; Lowell, George H.; Vancott, Thomas C.; Birx, Deborah L.  
 SOURCE: PCT Int. Appl., 63 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9801558	A2	19980115	WO 1997-US12253	19970710
WO 9801558	A3	19980514		
W:		AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
CA 2259961	AA	19980115	CA 1997-2259961	19970710
AU 9736629	A1	19980202	AU 1997-36629	19970710
AU 739723	B2	20011018		
EP 929678	A2	19990721	EP 1997-933443	19970710
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI		
JP 2001505535	T2	20010424	JP 1998-505372	19970710
PRIORITY APPLN. INFO.:			US 1996-21687P P	19960710
			WO 1997-US12253 W	19970710

AB A novel vaccine compn. combines a protein or peptide antigen, an optional hydrophobic substance and an immunopotentiating membranous carrier, such as a proteosome, which together preserve the antigenic integrity of the protein or peptide epitopes while at the same time increasing their **immunogenicity**. Proteosomes are derived from the cell membranes of *Neisseria meningitidis*. The hydrophobic substance is preferably a hydrophobic peptide with a hydrophobic moiety such as a C8-18 fatty acid conjugated to it. Administering this compn. to a subject provokes a protective immune response of secretory neutralizing antibodies present in various mucosal sites in the body. This vaccine and the process for using it is intended for use against pathogenic organisms, in particular those causing sexually or mucosally transmitted diseases. Such organisms include bacteria and enveloped viruses, particularly **HIV-1**.

L5 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1997:255918 HCAPLUS

DOCUMENT NUMBER: 126:304737  
TITLE: Responsiveness of human immunodeficiency virus type 1-infected Kenyan women with or without prior pneumococcal disease to pneumococcal vaccine  
AUTHOR(S): Janoff, Edward N.; Fasching, Claudine; Ojoo, Josephine C.; O'brien, James; Gilks, Charles F.  
CORPORATE SOURCE: Infectious Disease Division, Department of Medicine, Veterans Affairs Medical Center, University of Minnesota School of Medicine, Minneapolis, MN, 55417, USA  
SOURCE: J. Infect. Dis. (1997), 175(4), 975-978  
CODEN: JIDIAQ; ISSN: 0022-1899  
PUBLISHER: University of Chicago Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB In East Africa, *Streptococcus pneumoniae* is a common and serious, but potentially preventable, human immunodeficiency virus type 1 (HIV-1)-assocd. pathogen. For 54 HIV-1-infected women, baseline levels of capsule-specific antibody to 2 of 4 pneumococcal serotypes were lower than levels in 15 seroneg. women ( $P < .05$ ). After immunization, specific antibody to all 4 serotypes increased in HIV-1-infected and -uninfected women ( $P < .05$ ). Convalescent levels for 2 of 4 serotypes were greater in seroneg. women, but the levels were not different between HIV-1-infected women with ( $n = 21$ ) or without ( $n = 33$ ) prior invasive pneumococcal disease. The baseline functional activity to kill *S. pneumoniae* type 14 was lower in HIV-1-infected than -uninfected women but also rose significantly in all groups after immunization. It is concluded that HIV-1 infection in Kenyan women is assocd. with decreased levels of natural antibody to selected pneumococcal capsular serotypes, but the vaccine is immunogenic in these patients who are at high risk of invasive pneumococcal disease.

L5 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1997:125094 HCAPLUS  
DOCUMENT NUMBER: 126:181034  
TITLE: Proteosomes, emulsomes, and cholera toxin B improve nasal immunogenicity of human immunodeficiency virus gp160 in mice: induction of serum, intestinal, vaginal, and lung IgA and IgG  
AUTHOR(S): Lowell, George H.; Kaminski, Robert W.; VanCott, Thomas C.; Slike, Bonnie; Kersey, Kathryn; Zawoznik, Eduardo; Loomis-Price, Lawrence; Smith, Gale; Birx, Deborah L.  
CORPORATE SOURCE: Div. Pathol., Walter Reed Army Inst. Res., Washington, DC, USA  
SOURCE: J. Infect. Dis. (1997), 175(2), 292-301  
CODEN: JIDIAQ; ISSN: 0022-1899  
PUBLISHER: University of Chicago Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Intranasal immunization of mice with human immunodeficiency virus (HIV) rgp160 complexed to proteosomes improved anti-gp160 serum IgA and IgG titers, increased the no. of gp160 peptides

recognized, and stimulated anti-gp160 intestinal IgA compared with immunization with uncomplexed rgp160 in saline. These enhanced responses were esp. evident when either a **bioadhesive** nanoemulsion (emulsomes) or cholera toxin B subunit (CTB) was added to the proteosome-rgp160 vaccine. Furthermore, anti-gp160 IgG and IgA in vaginal secretions and fecal exts. were induced after intranasal immunization with proteosome-rgp160 delivered either in saline or with emulsomes. Formulation of uncomplexed rgp160 with emulsomes or CTB also enhanced serum and selected mucosal IgA responses. Induction of serum, vaginal, bronchial, intestinal, and fecal IgA and IgG by intranasal proteosome-rgp160 vaccines delivered in saline or with emulsomes or CTB is encouraging for mucosal vaccine development to help control the spread of HIV transmission and AIDS.

L5 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:724848 HCAPLUS

DOCUMENT NUMBER: 126:6458

TITLE: Monoclonal antibodies against HIV-1 and vaccines made thereof

INVENTOR(S): Katinger, Hermann; Buchacher, Andrea; Ernst, Wolfgang; Ballaun, Claudia; Purtscher, Martin; Trkola, Alexandra; Predl, Renate; Schmatz, Christine; Klima, Annelies; et al.

PATENT ASSIGNEE(S): Polymun Scientific Immunbiologische Forschung Gmbh, Austria; Katinger, Hermann; Buchacher, Andrea; Ernst, Wolfgang; Ballaun, Claudia; Purtscher, Martin; Trkola, Alexandra; Predl, Renate; Schmatz, Christine; et al.

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9633219	A1	19961024	WO 1995-EP1481	19950419
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2218515	AA	19961024	CA 1995-2218515	19950419
AU 9523085	A1	19961107	AU 1995-23085	19950419
EP 822941	A1	19980211	EP 1995-916676	19950419
R: AT, CH, DE, ES, FR, GB, IT, LI, PT				
CN 1186500	A	19980701	CN 1995-197896	19950419
BR 9510575	A	19981215	BR 1995-10575	19950419
US 5911989	A	19990615	US 1995-478536	19950607
ZA 9602629	A	19971002	ZA 1996-2629	19960402
US 6268484	B1	20010731	US 1998-124900	19980730
PRIORITY APPLN. INFO.:			CA 1995-2218515 A	19950419

WO 1995-EP1481 W 19950419  
US 1995-478536 A3 19950607

AB The present invention discloses antibodies which can be used for the manuf. of vaccines for active and/or passive immunization of persons in need of such treatment. The invention also provides for human monoclonal antibodies that are functionally equiv. to the above-mentioned antibodies produced by any one of the cell lines CL1 through CL6 (**deposited** at the European Collection of Animal Cell Cultures (ECACC) at the PHLS in Porton Down, Salisbury, UK). It is also a goal of the present invention to provide for hybridoma and/or CHO cell lines producing any one of the antibodies disclosed and claimed herein. The invention is further directed to mixts. of the antibodies of the present invention, as well as to methods of using individual antibodies or mixts. thereof for the detection, prevention and/or therapeutical treatment of HIV-1 infections in vitro and in vivo.

L5 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:271397 HCAPLUS

DOCUMENT NUMBER: 122:53850

TITLE: Increased susceptibility of mice infected with Schistosoma mansoni to recombinant vaccinia virus: association of viral persistence with egg granuloma formation

AUTHOR(S): Actor, Jeffrey K.; Marshall, Margaret A.; Eltoum, Isam A.; Buller, R. Mark L.; Berzofsky, Jay A.; Sher, Alan

CORPORATE SOURCE: Lab. Parasitic Dis., Natl. Inst. Health, Bethesda, MD, USA

SOURCE: Eur. J. Immunol. (1994), 24(12), 3050-6

CODEN: EJIMAF; ISSN: 0014-2980

DOCUMENT TYPE: Journal

LANGUAGE: English

AB BALB/c mice infected 7 wk previously with Schistosoma mansoni and challenged with a recombinant vaccinia virus vPE16 expressing the human immunodeficiency virus envelope protein gp160 show a marked delay in hepatic viral clearance as compared to mice infected with vPE16 alone. This increase in viral persistence is accompanied by reduced gp120-specific Th1-assocd. cytokine responses as well as by impaired cytotoxic T lymphocyte (CTL) activity against targets expressing epitopes of the same antigen. To investigate the contribution of these defects to the obsd. delay in clearance of recombinant vaccinia virus, animals were challenged with vPE16 at different times following S mansoni infection, and virus titers in tissues and viral-specific immune responses were measured simultaneously in the same animals. While normal resoln. of virus occurred in schistosome-infected mice prior to parasite egg **deposition**, persistence within the liver was obsd. in animals challenged during the onset and peak phase of granuloma formation (6 to 8 wk after S. mansoni infection). At later times, when schistosomiasis is in its chronic phase, normal viral clearance returned. This time course of viral resoln. correlated in part with the obsd. pattern of decreased Th1 cytokine prodn. toward viral antigens but was clearly less temporally related to the defect in virus-specific CTL activity. Immunohistochem. staining of liver sections from vaccinia/S. mansoni co-infected mice with polyclonal anti-vaccinia antibodies revealed that viral epitopes are localized primarily within granulomas. These expts. suggest that egg

granulomas, by providing a microenvironment for viral expansion, in combination with the cytokine imbalance present during schistosome infection, can promote the expansion of vaccinia virus and possibly other viral agents.

L5 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:321226 HCAPLUS

DOCUMENT NUMBER: 120:321226

TITLE: Complement activation by **gp160** glycoprotein of **HIV-1**

AUTHOR(S): Thieblemont, Nathalie; Haeffner-Cavaillon, Nicole; Weiss, Laurence; Maillet, Francoise; Kazatchkine, Michel D.

CORPORATE SOURCE: Inst. Natl. de la Sante et de la Rech. Med. U28, Hop. Broussais, Paris, 75014, Fr.

SOURCE: AIDS Res. Hum. Retroviruses (1993), 9(3), 229-33  
CODEN: ARHRE7; ISSN: 0889-2229

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The ability of the **gp160** envelope glycoprotein of **HIV-1** to activate human complement and to bind C3 fragments was investigated by incubating mammalian-derived recombinant **gp160** with seroneg. serum and by quantitating the binding of C3b/iC3b to the protein using a biotinylated monoclonal antibody directed against a neoepitope expressed by cleaved human C3. Recombinant **gp160** activated complement in a dose- and time-dependent fashion. Complement activation occurred through the classical pathway, independently of antibodies, and required Clq. Binding of anti-**HIV** IgG to rgp160 prior to exposure of the envelope glycoprotein to serum resulted in enhanced complement activation. Complexes of rgp120 with anti-**HIV** IgG also cleaved C3 in serum, resulting in **deposition** of C3b on gp120. These results provide a basis for C3-mediated facilitation of viral entry into target cells expressing receptors for fragments of human C3.

L5 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:653804 HCAPLUS

DOCUMENT NUMBER: 115:253804

TITLE: Human immunodeficiency virus type 1 activates the classical pathway of complement by direct C1 binding through specific sites in the transmembrane glycoprotein gp41

AUTHOR(S): Ebenbichler, C. F.; Thielens, N. M.; Vornhagen, R.; Marschang, P.; Arlaud, G. J.; Dierich, M. P.

CORPORATE SOURCE: Inst. Hyg., Innsbruck, 6010, Austria

SOURCE: J. Exp. Med. (1991), 174(6), 1417-24  
CODEN: JEMEAV; ISSN: 0022-1007

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Human immunodeficiency virus type 1 (**HIV-1**), in contrast to animal retrovirus such as murine leukemia virus, is not lysed by human complement. Nevertheless, **HIV-1** activates complement via the classical pathway independent of antibody, and C3b **deposition** facilitates infection of complement receptor-bearing cells. Using gel exclusion chromatog. on Sephacryl S-1000, purified virions were found to

bind 125I-labeled Clq, but no 125I-labeled dimeric proenzyme Cls. Virions activated the C1 complex, reconstituted from Clq, proenzyme Clr, and 125I-labeled proenzyme Cls, to an extent comparable with that obtained with IgG-ovalbumin immune complexes. To det. the activating viral component, recombinant viral proteins were used: in the solid phase, sol. gp41 (sgp41) (the outer membrane part of gp41, residues 539-684 of **gp160**) bound Clq, but not dimeric proenzyme Cls, while gp120 was ineffective. In the fluid phase, sgp41 activated the C1 complex in a dose- and time-dependent manner, more efficiently than aggregated Ig, but less efficiently than immune complexes. To localize the C1 activating site(s) in gp41, synthetic peptides (15-residue oligomers spanning amino acids 531-695 of **gp160**) were used. Peptides covering positions 591-605 and 601-620 and, to a lesser extent, positions 561-575, had both the ability to bind Clq and to induce C3 **deposition**. These data provide the first exptl. evidence of a direct interaction between the C1 complex and **HIV-1**, and indicate that C1 binding and activation are mediated by specific sites in gp41.

L5 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:94529 HCAPLUS  
 DOCUMENT NUMBER: 114:94529  
 TITLE: Feasibility of cellular microencapsulation technology for evaluation of anti-human immunodeficiency virus drugs in vivo  
 AUTHOR(S): McMahon, James; Schmid, Steven; Weislow, Owen; Stinson, Sherman; Camalier, Richard; Gulakowski, Robert; Shoemaker, Robert; Kiser, Rebecca; Dykes, Donald; et al.  
 CORPORATE SOURCE: Frederick Cancer Res. Dev. Cent., NCI, Frederick, ND, 21701-1013, USA  
 SOURCE: J. Natl. Cancer Inst. (1990), 82(22), 1761-5  
 CODEN: JNCIEQ; ISSN: 0027-8874  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The feasibility of microencapsulation technol. for the evaluation of anti-human immunodeficiency virus (**HIV**) drugs was investigated. The ability to place human cells in microcapsules with semipermeable membranes for implantation into test animals led to the development of this assay. The anti-**HIV** activity assay involves microencapsulating human T-lymphoblastoid cells sensitive to the cytopathic effects of **HIV**; the encapsulated cells are then implanted into athymic nude mice and recovered after drug treatment in vivo. A pos. antiviral effect of the test substance is indicated by growth or survival of the virus-infected cells in the microcapsules. Several **HIV**-sensitive cell lines of T-lymphocyte, monocyte, and nonlymphocyte origin were examd. for growth in microcapsules in vitro and in vivo. Light and electron microscopic anal. of the **capsules** and the human cells contained therein revealed the invasion of mouse immune cells and other adverse effects that could not be over come by any of numerous tech. modifications attempted. Thus, cellular microencapsulation technol. is not feasible for in vivo drug-testing protocols because of **immunogenic** reactions.

L5 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:73419 HCAPLUS  
 DOCUMENT NUMBER: 112:73419  
 TITLE: Monoclonal antibody specific to human immunodeficiency virus antigens  
 INVENTOR(S): Kortright, Kenneth H.; Hofheinz, David E.; Sullivan, Carole; Toedter, Gary P.  
 PATENT ASSIGNEE(S): Coulter Corp., USA  
 SOURCE: PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8904376	A1	19890518	WO 1988-US1997	19880610
W: AU, BR, DK, JP, KR, NO				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
US 4888290	A	19891219	US 1987-118145	19871106
AU 8821337	A1	19890601	AU 1988-21337	19880610
AU 612686	B2	19910718		
JP 03500483	T2	19910207	JP 1988-506392	19880610
EP 415920	A1	19910313	EP 1988-906574	19880610
EP 415920	B1	19950920		
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
ZA 8804651	A	19900328	ZA 1988-4651	19880629
IL 87535	A1	19930114	IL 1988-87535	19880823
CN 1033071	A	19890524	CN 1988-106729	19880915
CN 1025219	B	19940629		
ES 2016427	A6	19901101	ES 1988-3362	19881104
PRIORITY APPLN. INFO.:			US 1987-118145	19871106
			WO 1988-US1997	19880610

AB A monoclonal antibody (Mab), and a hybridoma cell line producing it, are provided. The Mab recognizes a group of human immunodeficiency virus (HIV) core antigens having a common epitope, including p55, p24, and addnl. breakdown antigens; it essentially fails to recognize HIV envelope antigens. The Mab is esp. useful for a solid phase immunoassay for HIV antigens found in a serum or plasma sample from a human patient. Mice were immunized i.p. with an isolated lymphadenopathy virus (LAV)-infected cell line in complete Freund's adjuvant and 3 addnl. injections, 1 wk apart, of purified virus in incomplete Freund's adjuvant. These injections were followed by 3 immunizations, 1 wk apart, of a lentil-lectin-affinity purified LAV ext. contg. primarily viral envelope (gp160/120). A hybridoma cell line (deposited as A.T.C.C. No. HB 9585) was produced, cloned, and screened using std. techniques. Mab nKC-57 was isolated which recognized core antigens p55 and p24, as well as p39 and p31. Reactivity with p18 or any HIV envelope proteins was not obsd. An EIA methodol. using KC-57 as a capture phase and human anti-HIV antibody as the detector phase reacted pos. for 8 different HIV isolates from different world regions; KC-57 was not reactive with Epstein-Barr virus, Chlamydia, cytomegalovirus, and 4 other infectious agents.

L5 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:592774 HCAPLUS  
 DOCUMENT NUMBER: 111:192774  
 TITLE: HIV and HIV-infected cells differentially activate the human complement system independent of antibody  
 AUTHOR(S): Soelder, B. M.; Schulz, T. F.; Hengster, P.; Loewer, J.; Larcher, C.; Bitterlich, G.; Kurth, R.; Wachter, H.; Dierich, M. P.  
 CORPORATE SOURCE: Inst. Hyg., Ludwig Boltzmann Inst. AIDS Forsch., Innsbruck, Austria  
 SOURCE: Immunol. Lett. (1989), 22(2), 135-45  
 CODEN: IMLED6; ISSN: 0165-2478  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The human retroviruses HTLV-I and HIV-I have previously been shown not to be lysed by human serum. An interaction between HIV and the complement system, however, has not been investigated in any detail. Purified HIV as well as HIV-infected cells activate the complement system. In the case of virus-infected cells, this activation is mediated by the alternative pathway of complement, whereas the classical pathway seems to be in operation for the triggering of the complement system by purified virus and recombinant envelope glycoprotein (gp 160). This leads to the deposition of C3b and/or C3bi on the surface of infected cells. However, the HIV-infected cells are not lysed by human complement. C3 fragments deposited on the surface of HIV-infected cells are capable of mediating immune adherence to complement receptor-bearing cells, such as human erythrocytes and phagocytes.

L5 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1988:489337 HCAPLUS  
 DOCUMENT NUMBER: 109:89337  
 TITLE: Retrovirus of the human immunodeficiency virus 2 (HIV-2) type capable of inducing AIDS, its antigenic and nucleic acid constituents, and diagnostic and therapeutic methods and kits  
 INVENTOR(S): Montagnier, Luc; Chamaret, Solange; Guetard, Denise; Alizon, Marc; Clavel, Francois; Guyader, Mireille; Sonigo, Pierre; Brun-Vezinet, Francoise; Rey, Marianne; et al.  
 PATENT ASSIGNEE(S): Institut Pasteur, Fr.  
 SOURCE: PCT Int. Appl., 117 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 8  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8704459	A1	19870730	WO 1987-FR25	19870122
W: AU, DK, JP, KR, US				
RW: CF, CG, CM, GA, ML, MR, SN, TD, TG				



FR 2593189	A1	19870724	FR 1986-910	19860122
FR 2593189	B1	19891020		
FR 2593190	A1	19870724	FR 1986-911	19860122
FR 2593190	B1	19891020		
FR 2593922	A1	19870807	FR 1986-1635	19860206
FR 2593922	B1	19890519		
FR 2594229	A1	19870814	FR 1986-1985	19860213
FR 2594229	B1	19890519		
US 4839288	A	19890613	US 1986-835228	19860303
FR 2596063	A1	19870925	FR 1986-3881	19860318
FR 2596063	B1	19890519		
FR 2597500	A1	19871023	FR 1986-4215	19860324
FR 2597500	B1	19890602		
AU 8768911	A1	19870814	AU 1987-68911	19870122
AU 601397	B2	19900913		
JP 63502242	T2	19880901	JP 1987-500920	19870122
JP 2865203	B2	19990308		
US 5079342	A	19920107	US 1987-13477	19870211
DK 8704934	A	19871117	DK 1987-4934	19870921
EP 269520	A2	19880601	EP 1987-402631	19871123
EP 269520	A3	19880824		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5364933	A	19941115	US 1992-929432	19920814
US 6054565	A	20000425	US 1994-234875	19940428
US 6322964	B1	20011127	US 1994-268388	19940630
US 6037165	A	20000314	US 1995-470487	19950606
US 6265149	B1	20010724	US 1995-470491	19950606
US 6316183	B1	20011113	US 1995-467161	19950606
US 6261762	B1	20010717	US 1997-774736	19970102
PRIORITY APPLN. INFO.:			FR 1986-910	A 19860122
			FR 1986-911	A 19860122
			FR 1986-1635	A 19860206
			FR 1986-1985	A 19860213
			US 1986-835228	A 19860303
			FR 1986-3881	A 19860318
			FR 1986-4215	A 19860324
			US 1986-916080	A 19861006
			US 1986-933184	A 19861121
			US 1987-13477	A2 19870211
			US 1986-931866	A2 19861121
			US 1987-3764	A2 19870116
			EP 1987-400151	A 19870122
			WO 1987-FR25	A 19870122
			US 1987-30403	B2 19870325
			US 1987-35408	B1 19870407
			US 1987-150645	B1 19871120
			US 1989-365117	B1 19890612
			US 1990-462908	A3 19900110
			US 1990-602383	B1 19901024
			US 1990-622299	B1 19901205
			US 1991-752368	B3 19910903
			US 1991-756998	A1 19910909
			US 1991-771893	B1 19911007
			US 1991-792524	B1 19911118

US 1991-807426	B1 19911213
US 1991-810908	A3 19911220
US 1992-911364	A3 19920713
US 1993-37506	B1 19930324
US 1993-75020	B1 19930611
US 1993-132919	A1 19931007
US 1995-392613	A3 19950222

AB Retrovirus HIV-2 and its antigenic and nucleic acid components are useful in diagnostic (e.g. antibody immunoassays) and therapeutic methods and kits. Protein antigens p12, p16, p26, and gp140 and genetic material have been prepd. Glycoprotein gp140 is particularly useful in **immunogenic** compns. Nucleotide sequences useful as hybridization probes are disclosed. HIV of patients from west Africa was isolated by stimulating their peripheral blood lymphocytes (PBLs) with PHA and cultivating in coculture with normal PBLs so stimulated and maintained in the presence of interleukin-2. The viruses were centrifuged, lysed, and **deposited** on nitrocellulose. The samples were treated with an HIV-1 probe corresponding to the complete genome of LAVBRU or an HIV-2 probe derived from a 2-kb cDNA clone of LAV-2ROD, both labeled with 32P, under stringent hybridization conditions. All of the virus samples hybridized with the HIV-2 probe only.

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Logon file415 12apr02 08:29:45

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(below) for individual file numbers.

--Connect Time joins DialUnits as pricing  
options on Dialog. See HELP CONNECT for  
information.

--CLAIMS/US Patents (Files 340,341, 942) have been enhanced  
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\*\*\*Dialog NewsRoom - 2001 Archive (File 994)

\*\*\*Dialog NewsRoom - 2000 Archive (File 995)

\*\*\*AGROProjects (File 235)

\*\*\*TRADEMARKSCAN-Finland (File 679)

\*\*\*TRADEMARKSCAN-Japan (File 669)

\*\*\*TRADEMARKSCAN-Norway (File 678)

\*\*\*TRADEMARKSCAN-Sweden (File 675)

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\*\*\*Population Demographics (File 581)  
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 \*\*\*Kompass Western Europe (590)  
 \*\*\*D&B - Dun's Market Identifiers (516)

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 \*\*\*Books in Print (File 470)  
 \*\*\*Court Filings (File 793)  
 \*\*\*Microcomputer Software Guide Online (File 278)  
 \*\*\*Publishers, Distributors & Wholesalers of the U.S. (File 450)  
 \*\*\*State Tax Today (File 791)  
 \*\*\*Tax Notes Today (File 790)  
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	12apr02 08:31:20	User259289 Session D254.1
	\$0.00	0.094 DialUnits File415
	\$0.00	Estimated cost File415
	\$0.43	TELNET
	\$0.43	Estimated cost this search
	\$0.43	Estimated total session cost 0.094 DialUnits

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 File 94:JICST-EPlus 1985-2002/Feb W4  
 (c)2002 Japan Science and Tech Corp(JST)  
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 File 149:TGG Health&Wellness DB(SM) 1976-2002/Mar W5  
 (c) 2002 The Gale Group  
 File 162:CAB HEALTH 1983-2002/Mar  
 (c) 2002 CAB INTERNATIONAL  
**\*File 162: Truncating CC codes is recommended for full retrieval.**  
 See Help News162 for details.  
 File 351:Derwent WPI 1963-2001/UD,UM &UP=200223  
 (c) 2002 Derwent Info Ltd  
**\*File 351: Please see HELP NEWS 351 for details about U.S. provisional applications.**  
 File 357:Derwent Biotech Res 1982-2002/Feb W2  
 (c) 2002 Thomson Derwent & ISI  
**\*File 357: Price changes as of 1/1/02. Please see HELP RATES 357.**  
 Derwent announces file enhancements. Please see HELP NEWS 357.  
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 (c) 1998 Inst for Sci Info  
 File 440:Current Contents Search(R) 1990-2002/Apr W2  
 (c) 2002 Inst for Sci Info

Set	Items	Description
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	0	GLYCOPROTEIN160
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	332730	GP
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	535059	GLYCOPROTEIN
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	232125	160
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	1763	(GP OR GLYCOPROTEIN) (W)160
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S1	9934	GP160 OR GLYCOPROTEIN160 OR (GP OR GLYCOPROTEIN) (W)160
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?s (s1 or immunogen?)(s)(hiv or herpes or candidae or hepatitis or piconaviridae or rotavirus or poliomyelitis or adenovirus or papillomavirus or cytomegalovirus or Epstein(w)Barr or aerosol?(w)transmit?(w)pathogen?)

Processing

Processed 10 of 16 files ...

Processing

Completed processing all files

	9934	S1
--	------	----

	244635	IMMUNOGEN?
--	--------	------------

	737411	HIV
--	--------	-----

	233094	HERPES
--	--------	--------

	107	CANDIDAE
--	-----	----------

	556571	HEPATITIS
--	--------	-----------

	6	PICONAVIRIDAE
--	---	---------------

	40563	ROTAVIRUS
--	-------	-----------

	30069	POLIOMYELITIS
--	-------	---------------

	128566	ADENOVIRUS
--	--------	------------

	80706	PAPILLOMAVIRUS
--	-------	----------------

	144908	CYTOMEGALOVIRUS
--	--------	-----------------

	123748	EPSTEIN
--	--------	---------

	121138	BARR
--	--------	------

	116258	EPSTEIN (W) BARR
--	--------	------------------

```

229123 AEROSOL?
875729 TRANSMIT?
1719496 PATHOGEN?
      3 AEROSOL? (W) TRANSMIT? (W) PATHOGEN?
S2 28854 (S1 OR IMMUNOGEN?) (S) (HIV OR HERPES OR CANDIDAE OR
        HEPATITIS OR PICONAVIRIDAE OR ROTAVIRUS OR POLIOMYELITIS
        OR ADENOVIRUS OR PAPILLOMAVIRUS OR CYTOMEGALOVIRUS OR
        EPSTEIN (W) BARR OR AEROSOL? (W) TRANSMIT? (W) PATHOGEN?)
?s s2 and (subling?(w)inject? or deposit? or bioadhesiv? or capsule?)
Processed 10 of 16 files ...
Processing
Completed processing all files
      28854 S2
      27379 SUBLING?
2303365 INJECT?
      22 SUBLING? (W) INJECT?
1334551 DEPOSIT?
      4104 BIOADHESIV?
      210293 CAPSULE?
S3 235 S2 AND (SUBLING? (W) INJECT? OR DEPOSIT? OR BIOADHESIV? OR
      CAPSULE?)

?rd
>>>Duplicate detection is not supported for File 351.

>>>Records from unsupported files will be retained in the RD set.
...examined 50 records (50)
...examined 50 records (100)
...examined 50 records (150)
>>>Record 440:13544989 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:13544564 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:13541577 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:13538753 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:13538214 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:13537789 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:13163472 ignored; incomplete bibliographic data, not retained
in RD set
...examined 50 records (200)
>>>Record 440:12843165 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:10551678 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:9572912 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:8499172 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:8285661 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:7543357 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:7265569 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:6987074 ignored; incomplete bibliographic data, not retained
in RD set
>>>Record 440:6970452 ignored; incomplete bibliographic data, not retained
in RD set

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>>>Record 440:6646922 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:6641671 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:6481207 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:5585321 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:5191582 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:4909210 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:4899286 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:4413728 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:4327458 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:4010523 ignored; incomplete bibliographic data, not retained  
in RD set  
>>>Record 440:3744217 ignored; incomplete bibliographic data, not retained  
in RD set

...completed examining records

S4 123 RD (unique items)

?s s4(s)(mouth or oral)

123 S4

324111 MOUTH

1729337 ORAL

S5 12 S4(S)(MOUTH OR ORAL)

?show files

File 155:MEDLINE(R) 1966-2002/Apr W1

File 5:Biosis Previews(R) 1969-2002/Apr W1

(c) 2002 BIOSIS

File 34:SciSearch(R) Cited Ref Sci 1990-2002/Apr W2

(c) 2002 Inst for Sci Info

File 35:Dissertation Abs Online 1861-2002/Mar

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File 71:ELSEVIER BIOBASE 1994-2002/Apr W1

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File 73:EMBASE 1974-2002/Apr W1

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File 76:Life Sciences Collection 1982-2002/Apr

(c) 2002 Cambridge Sci Abs

File 77:Conference Papers Index 1973-2002/Mar

(c) 2002 Cambridge Sci Abs

File 94:JICST-EPlus 1985-2002/Feb W4

(c)2002 Japan Science and Tech Corp(JST)

File 144:Pascal 1973-2002/Apr W1

(c) 2002 INIST/CNRS

File 149:TGG Health&Wellness DB(SM) 1976-2002/Mar W5

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File 162:CAB HEALTH 1983-2002/Mar

(c) 2002 CAB INTERNATIONAL

File 351:Derwent WPI 1963-2001/UD,UM &UP=200223

(c) 2002 Derwent Info Ltd

File 357:Derwent Biotech Res 1982-2002/Feb W2

(c) 2002 Thomson Derwent & ISI

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

(c) 1998 Inst for Sci Info

File 440:Current Contents Search(R) 1990-2002/Apr W2

(c) 2002 Inst for Sci Info

?ds

Set	Items	Description
S1	9934	GP160 OR GLYCOPROTEIN160 OR (GP OR GLYCOPROTEIN) (W)160
S2	28854	(S1 OR IMMUNOGEN?) (S) (HIV OR HERPES OR CANDIDAE OR HEPATITIS OR PICONAVIRIDAE OR ROTAVIRUS OR POLIOMYELITIS OR ADENOVIRUS OR PAPILLOMAVIRUS OR CYTOMEGALOVIRUS OR EPSTEIN(W)BARR OR - AEROSOL? (W) TRANSMIT? (W) PATHOGEN?)
S3	235	S2 AND (SUBLING? (W) INJECT? OR DEPOSIT? OR BIOADHESIV? OR C-APSULE?)
S4	123	RD (unique items)
S5	12	S4(S) (MOUTH OR ORAL)

?set hilight on

Hilight option is not available in file(s) 77

HILIGHT set on as ' '

?t5/3 ab/1-12

5/AB/1 (Item 1 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)

11663502 21405822 PMID: 11514729

**Immunogenicity of an E1-deleted recombinant human adenovirus against rabies by different routes of administration.**

Vos A; Neubert A; Pommerening E; Muller T; Dohner L; Neubert L; Hughes K  
Impfstoffwerk Dessau-Tornau GmbH, PO Box 214, 06855 Rosslau, Germany.  
ad.vos@idt-direct.de

Journal of general virology (England) Sep 2001, 82 (Pt 9) p2191-7,  
ISSN 0022-1317 Journal Code: I9B

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

The **immunogenic** properties of an E1-deleted, human **adenovirus** type 5 (Ad5) vaccine virus with activity against rabies were examined in mice, foxes and dogs using different routes of administration. NMRI mice received 10(5.8), 10(5.3), 10(4.3), 10(3.3) and 10(2.3) TCID(50) by peroral or intramuscular (i.m.) administration. Furthermore, six mice received 10(5.8) TCID(50) intracerebrally (i.c.). The construct elicited marked seroconversion in mice after **oral** administration. Immunoreactivity in mice was even more pronounced i.m. and i.c. After direct **oral** administration (10(8.0) TCID(50)) in foxes, six of eight animals developed rabies virus-neutralizing antibodies (VNA). All foxes immunized by direct injection (10(7.7) TCID(50)) in the membrane of the jejunum were shown to seroconvert. Pre-existing immunity against canine **adenovirus** did not hinder the development of rabies VNA after **oral** application of the construct (10(8.0) TCID(50)). Fox cubs (24-29 days old) born from rabies-immune vixens were shown to develop very high levels of rabies VNA after i.m. administration (10(8.0) TCID(50)), indicating that the **immunogenicity** of the construct could surpass maternally transferred immunity. In dogs, the construct (10(8.0) TCID(50)) induced a very strong immune response after i.m. administration. However, no immune response was detectable in dogs after direct **oral** administration (10(8.3) TCID(50)) or after endoscopic **deposition** in the smaller intestine (10(8.0) TCID(50)). Hence, it must be concluded that the construct is not suitable for **oral** vaccination of dogs against rabies.

5/AB/2 (Item 2 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)

11377640 21179882 PMID: 11282206

**Unique immunogenicity of hepatitis B virus DNA vaccine presented by**



**live-attenuated Salmonella typhimurium.**

Woo PC; Wong LP; Zheng BJ; Yuen KY

Department of Microbiology, University Pathology Building, Queen Mary Hospital, The University of Hong Kong, Pokfulam Road, Hong Kong.

Vaccine (England) Apr 6 2001, 19 (20-22) p2945-54, ISSN 0264-410X

Journal Code: X60

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

A novel vaccine for hepatitis B virus (HBV) was designed by putting a naked DNA vaccine carrying hepatitis B surface antigen (HBsAg) into live-attenuated *Salmonella typhimurium*. Mucosal immunization by the **oral** route in mice showed significantly stronger cytotoxic T lymphocyte (CTL) response than recombinant HBsAg vaccination ( $P < 0.01$  at an effector:target ratio of 100:1), while comparable to intramuscular naked DNA immunization at all effector:target ratios. Contrary to previous reports on naked DNA vaccines given intramuscularly, the IgG antibody response induced by the mucosal DNA vaccine is relatively weak when compared to recombinant HBsAg vaccine ( $P < 0.001$  at day 21). These findings are supported by a high interferon-gamma but a low interleukin-4 level detected in the supernatant of splenic cell cultures obtained from mucosally immunized mice. As distinct to recombinant HBsAg vaccine which is effective for protection, **oral** mucosal DNA vaccine should be considered as a candidate for therapeutic immunization in chronic HBV infection, donor immunization before adoptive transfer of HBV-specific CTL to HBsAg positive bone marrow transplant recipients, and immunization of non-responders to recombinant HBsAg vaccine. This strongly cellular and relatively absent humoral response may make this vaccine a better candidate as a therapeutic vaccine for chronic HBV carriers than naked DNA vaccines, as the humoral response is relatively less important for the clearance of HBV from hepatocytes, but its presence may lead to side effects such as serum sickness and immune complex **deposition** in chronic HBV carriers.

5/AB/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

08442286 95046945 PMID: 7958485

**Adenovirus vectored vaccines.**

Natuk RJ; Davis AR; Chanda PK; Lubeck MD; Chengalvala M; Murthy SC; Wade MS; Dheer SK; Bhat BM; Murthy KK; et al

Wyeth-Ayerst Research, Biotechnology &amp; Microbiology Division, Philadelphia, PA.

Developments in biological standardization (SWITZERLAND) 1994, 82 p71-7, ISSN 0301-5149 Journal Code: E7V

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Human recombinant adenoviruses (Ad) have been employed to develop experimental vaccines against a number of infectious agents. Ad-vectored vaccines express recombinant proteins, including any post-translational modifications, into functioning replicas of the native proteins capable of eliciting neutralizing antibodies in both abortive and permissive animal models. Human Ad types 4, 5, and 7 were used to construct recombinant viruses that express the respiratory syncytial virus F or G glycoproteins, the **hepatitis B** surface antigen, and the **HIV** env or gag genes. The recombinant Ad- **HIV** viruses are of particular interest and have been examined for their **immunogenicity** in dogs and chimpanzees. Dogs were immunized intratracheally with Ad-env recombinants (10<sup>9</sup> pfu/dog). Excellent humoral anti- **HIV** responses, including neutralizing antibodies, were detected in the sera following booster immunization (12-18 weeks after

primary immunization) with a second Ad-env recombinant made in a different Ad serotype (heterotypic booster). Chimpanzees were immunized in two ways, orally with lyophilized virus (10(9) to 10(10) pfu/virus) in enteric-coated capsules or intranasally (10(7) pfu/virus). Intranasal immunization was superior to oral immunization with respect to replication of recombinant viruses as well as induction of anti-Ad and anti- HIV antibodies. Administration by both routes resulted in stimulation of cellular immune responses, as measured by antigen proliferation assays. Anti- HIV antibodies were detected in chimpanzee secretions (salivary, nasal, rectal, vaginal) taken from animals following intranasal immunization with a heterotypic recombinant. Intranasal administration effectively primed chimpanzees to produce high-titred (320-640) serum neutralizing antibodies to HIV following boosting with a baculovirus-derived env ( gp160 ) subunit vaccine. (ABSTRACT TRUNCATED AT 250 WORDS)

5/AB/4 (Item 4 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)

08271098 95038296 PMID: 7950860

Exploration of mucosal immunity in humans: relevance to vaccine development.

Czerkinsky C; Holmgren J

INSERM Unit 80, Hopital Edouard-Herriot, Lyon, France.

Cellular and molecular biology (FRANCE) 1994, 40 Suppl 1 p37-44,

ISSN 0145-5680 Journal Code: BNA

Contract/Grant No.: 3R01HD26634-0151, HD, NICHD

Languages: ENGLISH

Document type: Journal Article; Review; Review, Tutorial

Record type: Completed

Although the immune system is remarkably diverse, there is evidence that certain types of immune responses take place and are restricted to certain anatomic locations within the body. The concept of a common mucosal immune system that provides immune reactivity not only at the site of antigen deposition but also at remote mucosal sites may be explained by the utilization of organ-specific recognition molecules by circulating precursors of mucosal immunoblasts and by the production of certain maturation factors (e.g. cytokines, hormones) produced preferentially in certain organs or parts of a given organ. This notion may explain the unification of immune responses in diverse mucosal sites and the physiologic segregation of mucosal from systemic immune mechanisms. Novel methods have been developed to enable studies of antigen specific B and T cell responses in various mucosal and extramucosal tissues in primates and rodents, using cholera toxin or its B subunit as prototype immunogens and mucosal carrier-delivery systems. The tissue localization and isotype commitment of antibody-secreting cells (ASC) and the homing potential of their circulating precursors have also been examined after oral, nasal, intra-tonsillar, rectal and/or genital immunization(s). The anatomical distribution of T- and accessory cell-derived cytokines has also been examined. These tools and approaches are being employed in studies attempting to induce optimal mucosal immune responses to several mucosal pathogens including HIV -1, in certain organs such as the lower gastrointestinal tract and the female urogenital tract. (ABSTRACT TRUNCATED AT 250 WORDS)

5/AB/5 (Item 1 from file: 34)  
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2002 Inst for Sci Info. All rts. reserv.

08055647 Genuine Article#: 241UR Number of References: 16

**Title: BERNA: a century of immunobiological innovation - Introduction** (ABSTRACT AVAILABLE)

Author(s): Cryz SJ (REPRINT)

Corporate Source: SWISS SERUM & VACCINE INST, BERNA, REHHAGSTR 79/CH-3018  
BERN//SWITZERLAND/ (REPRINT)

Journal: VACCINE, 1999, V17, 2 (OCT 1), PS1-S5

ISSN: 0264-410X Publication date: 19991001

Publisher: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON,  
OXFORD OX5 1GB, OXON, ENGLAND

Language: English Document Type: EDITORIAL MATERIAL

**Abstract:** At the time the Swiss Serum and Vaccine Institute Berne (BERNA) was found in 1898, few vaccines or Immune globulins were available. This short list included vaccines against cholera, typhoid fever, plague, smallpox and rabies and equine antitetanus and diphtheria immune globulins. Furthermore, their use was restricted due to limited production capacity, uncertainty regarding safety and no public health infrastructure to promote their utilization. Today, safe and effective vaccines exist for more than 30 infectious diseases while human hyperimmune globulins exist to treat or prevent rabies, tetanus, respiratory syncytial virus, **cytomegalovirus**, **hepatitis A**, **hepatitis B**, and **herpes virus** (Varicella zoster) infections. Throughout its 100 years of existence, BERNA has played a key role in the evolution of the field by introducing novel technology leading to safer, and more efficacious vaccines. It was a pioneer in the development of freeze dried smallpox vaccine free from bacterial contamination. The Salmonella typhi Ty21a typhoid fever vaccine strain demonstrated that **oral** immunization against enteric bacterial pathogens was not only feasible, but could be accomplished with a virtual lack of attendant adverse reactions. This finding has served as an impetus to develop other live attenuated bacterial strains not only as vaccines, but also as vectors for vaccine antigens and gene therapy. One such example is Vibrio cholerae CVD 103-HgR, the first live vaccine for human use derived through recombinant DNA technology. Subsequent studies have shown that these two vaccine strains can be combined without sacrificing safety or **immunogenicity**, setting the cornerstone for combined orally administered vaccines. Recently, a novel vaccine antigen delivery system, termed virosomes, has been utilized to construct **hepatitis A** and influenza vaccines. Such vaccines elicit fewer local adverse reactions than their classical counterparts and display enhanced **immunogenicity**. Virosome-formulated influenza vaccine has also been shown to be safe and **immunogenic**, when administered by the intranasal route. (C) 1999 Published by Elsevier Science Ltd. All rights reserved.

**5/AB/6 (Item 1 from file: 149)**

DIALOG(R) File 149:TGG Health&Wellness DB(SM)

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01807647 SUPPLIER NUMBER: 53280006 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Science, medicine, and the future: Infection with HIV-1.**

Graham, Barney S

British Medical Journal, 1297(1)

Nov 7,

1998

PUBLICATION FORMAT: Magazine/Journal ISSN: 0959-8146 LANGUAGE: English

RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional

WORD COUNT: 3959 LINE COUNT: 00342

**ABSTRACT:** Research may uncover new AIDS drugs that can completely eradicate HIV no matter where it hides in the body. HIV can enter cells and

then become inactive. The immune system no longer recognizes it but it can reactivate at any time. More effective drugs might also preserve the patient's immune system. Some people do not get AIDS even when infected by the virus and they often have high levels of CD8 T cells. Vaccines that stimulate the production of these T cells might be effective in preventing AIDS.

**5/AB/7 (Item 2 from file: 149)**

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01733911 SUPPLIER NUMBER: 20069193 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Influence of disease burden, public perception, and other factors on new vaccine development, implementation, and continued use.**

Levine, Myron M.; Levine, Orin S.

The Lancet, v350, n9088, p1386(7)

Nov 8,

1997

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0099-5355

LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE:

Professional

WORD COUNT: 6287 LINE COUNT: 00543

ABSTRACT: The severity and scope of disease does not exclusively guide the development and use of vaccines, particularly for developing countries. Efforts against malaria, which predominates in developing countries, are insufficient given the global impact. Yet, the development of vaccines against Lyme disease will primarily benefit the US. Problems with distribution can limit vaccine use. Accurate and comprehensive surveillance of disease patterns and infectious agents is necessary to develop effective vaccines. Helping manufacturers overcome production and liability hurdles may be important.

**5/AB/8 (Item 3 from file: 149)**

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01621340 SUPPLIER NUMBER: 18349434 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**The legacy of Edward Jenner: more vaccines of different types are reaching ever more people. (eighteenth century physician and vaccine pioneer**

**Edward Jenner) (Editorial)**

Levine, Myron M.

British Medical Journal, v312, n7040, p1177(2)

May 11,

1996

DOCUMENT TYPE: Editorial PUBLICATION FORMAT: Magazine/Journal ISSN:

0959-8146 LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE:

Professional

WORD COUNT: 1406 LINE COUNT: 00125

**5/AB/9 (Item 4 from file: 149)**

DIALOG(R)File 149:TGG Health&Wellness DB(SM)

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01489919 SUPPLIER NUMBER: 15828334 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Vaccine technologies: view to the future. (Cover Story)**

Rabinovich, N. Regina; McInnes, Pamela; Klein, David L.; Hall, B. Fenton

Science, v265, n5177, p1401(4)

Sept 2,  
1994

DOCUMENT TYPE: Cover Story PUBLICATION FORMAT: Magazine/Journal ISSN:  
0036-8075 LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
TARGET AUDIENCE: Academic  
WORD COUNT: 4497 LINE COUNT: 00384

AUTHOR ABSTRACT: The development of vaccines to prevent infectious diseases has been one of the most important contributions of biomedical science. Recent advances in the basic sciences are now fueling the development of a new generation of vaccines that will be based on rational design approaches. Two factors are making this possible: an improved understanding of the microbial factors required for virulence and the nature of the immune response to infection. The status of new vaccine technologies is summarized here.

5/AB/10 (Item 5 from file: 149)  
DIALOG(R) File 149:TGG Health&Wellness DB(SM)  
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01484663 SUPPLIER NUMBER: 16156158 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**Placebo-controlled trial of vaccination with recombinant glycoprotein D of herpes simplex virus type 2 for immunotherapy of genital herpes.**  
Straus, Stephen E.; Corey, Lawrence; Burke, Rae Lyn; Savarese, Barbara; Barnum, Gail; Krause, Philip R.; Kost, Rhonda G.; Meier, Jeffrey L.; Sekulovich, Rose; Adair, Suzanne F.; Dekker, Cornelia L.  
The Lancet, v343, n8911, p1460(4)  
June 11,  
1994

PUBLICATION FORMAT: Magazine/Journal ISSN: 0099-5355 LANGUAGE: English  
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional  
WORD COUNT: 3352 LINE COUNT: 00272

ABSTRACT: Treatment of patients with genital herpes with a vaccine of recombinant glycoprotein D of herpes simplex virus type 2 (gD2) may be well tolerated and help prevent outbreaks of genital herpes. Among 98 patients with recurrent genital herpes, 49 received 100 micrograms of gD2 at the start of the study and at the two-month point and 49 received a placebo (control group). By the end of the study year, patients treated with gD2 had experienced fewer herpes outbreaks than patients in the control group. Although the gD2 vaccine did not lower herpes outbreaks as much as treatment with daily doses of oral acyclovir, an antiviral drug used to treat herpes, the findings indicate that vaccines can be used to change the course of chronic viral infection in humans.

AUTHOR ABSTRACT: Immunotherapy of chronic viral diseases with vaccines is an important but unproven concept. We investigated the effect of a vaccine containing recombinant glycoprotein D (gD2) of herpes simplex virus type 2 (HSV-2) on the frequency of symptomatic outbreaks in patients with genital herpes. 98 patients with documented genital herpes who reported 4-14 recurrences per year were enrolled in a double-blind, placebo-controlled trial. Subjects received injections of either 100 [mu]g gD2 in alum or alum alone (placebo) at 0 and 2 months, and recurrences were documented for 1 year. The vaccine was well tolerated. gD2 recipients reported fewer recurrences per month than placebo recipients (mean 0.42 [SEO 0.05] vs 0.55 [0.05]; p=0.055), had fewer virologically confirmed recurrences per month (0.18 [0.03] vs 0.28 [0-03]; P=0.019), and had a lower median number of recurrences for the study year (4 [range 0.17] vs 6 [0.15]; p=0.039). Neither genital recurrence nor the placebo vaccine had any discernible effect on HSV-2-specific antibody responses, but gD2 vaccine boosted neutralising antibodies to HSV-2 fourfold and gD2-specific titres sevenfold

over baseline levels. These results inspire optimism about the potential use of vaccine for the treatment of chronic, recurring viral diseases.  
Lancet 1994;343: 1460-63

5/AB/11 (Item 6 from file: 149)  
DIALOG(R)File 149:TGG Health&Wellness DB(SM)  
(c) 2002 The Gale Group. All rts. reserv.

01253888 SUPPLIER NUMBER: 09036885 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Enteric infections.**

Levine, Myron M.

The Lancet, v335, n8695, p958(4)

April 21,

1990

PUBLICATION FORMAT: Magazine/Journal ISSN: 0099-5355 LANGUAGE: English

RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional

WORD COUNT: 3162 LINE COUNT: 00320

ABSTRACT: Infants, young children, and travellers from developed countries are most at risk for enteric (intestinal) infections in developing countries, while those most affected in industrialized countries are infants, children in day care centers, and the elderly. Much of the world's diarrhea is caused by a few bacteria and one type of virus, the rotavirus. The Diarrhoeal Diseases Control Programme of the World Health Organization has attached a high priority to developing vaccines against these agents. A review of the status of such vaccines is provided. Two new vaccinations against Salmonella typhi are currently being evaluated, Ty21a and Vi polysaccharide. Earlier vaccines were poorly tolerated by many recipients and Ty21a is already in use in several countries. Several candidate vaccines against rotavirus are under development, but none is licensed for immunizing young infants. Vaccines against Shigella, cholera, and E. coli infection are also reviewed. Improved knowledge about the pathogenesis of these infections and about immunity have facilitated progress in this area, as have the tools of modern molecular biology. (Consumer Summary produced by Reliance Medical Information, Inc.)

5/AB/12 (Item 1 from file: 351)  
DIALOG(R)File 351:Derwent WPI  
(c) 2002 Derwent Info Ltd. All rts. reserv.

012999035

WPI Acc No: 2000-170887/200015

XRAM Acc No: C00-053056

**Buccal administration of immunogen specific for pathogen that enters through the mucosa, for inducing protective local immune response, e.g. against HIV**

Patent Assignee: PASTEUR MERIEUX SERUMS & VACCINS SA (INMR ); AVENTIS PASTEUR (AVET ); JOURDIER T (JOUR-I); MEIGNIER B (MEIG-I); MOSTE C (MOST-I)

Inventor: JOURDIER T; MEIGNIER B; MOSTE C

Number of Countries: 087 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200000218	A1	20000106	WO 99FR1554	A	19990628	200015 B
AU 9943761	A	20000117	AU 9943761	A	19990628	200026
EP 1087788	A1	20010404	EP 99926558	A	19990628	200120
			WO 99FR1554	A	19990628	
US 20010021384	A1	20010913	US 2000746581	A	20001221	200155

Priority Applications (No Type Date): FR 988354 A 19980626

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200000218 A1 F 29 A61K-039/21

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9943761 A A61K-039/21 Based on patent WO 200000218

EP 1087788 A1 F A61K-039/21 Based on patent WO 200000218

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU  
NL PT SE

US 20010021384 A1 A61K-039/00

Abstract (Basic): WO 200000218 A1

Abstract (Basic):

NOVELTY - Use of an immunogen (A), specific for a pathogen that enters the body through the buccal mucosa, to produce a vaccinating composition for administration to the floor of the human mouth. The composition induces directly a local response of:

- (1) immunoglobulin (Ig) A, and
- (2) B cells that secrete Ab in the oral mucosa, the lymph nodes that drain it and the saliva.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) vaccine composition, for administration as above to induce a local and systemic IgA response, containing a material that adheres to the mucosa and at least one (A), and

(2) a similar vaccine composition containing a non-adhesive material which degrades in contact with oral secretion and is provided with invasive elements that promote penetration of (A) across the buccal mucosa.

ACTIVITY - Antiviral; antibacterial; antimycotic.

MECHANISM OF ACTION - Induction of a specific immune response.

USE - (A) is particularly used to induce an immune response in the oral mucosa against human immune deficiency virus (HIV), particularly; herpes (e.g. herpes simplex), Candida, hepatitis virus (especially type A), picorna viruses (particularly polio), reoviruses (particularly rota viruses), adenoviruses, human papilloma virus, paradontosis, cytomegalovirus, Epstein-Barr virus, and all pathogens transmitted in aerosols, e.g. Mycobacterium tuberculosis, Neisseria meningitidis, Streptococcus type B, S. pneumoniae and Bordetella pertussis. It can be used for protective vaccination or for active immunotherapy. More generally, the method can be combined with any classical immunization procedure.

ADVANTAGE - The method is a simple, efficient and direct way of inducing local, and optionally also systemic, immunity.

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